AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-007

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

In this edition:

* AMSAT-NA Moves Into New Satellite Lab
* SKN Best Fist Nominations Due
* OSCAR Numbers for RAFT and ANDE Satellites
* AMSAT Awards
* AO-51 Operating Schedule Modified for Software Reload and Testing
* Sunlight-Only Birds See the Light
* Space and Satellite Shorts
* AMSAT-NA President's Letter 2006
* ARISS Status Report for the Week of January 1, 2007

SB SAT @ AMSAT $ANS-007.01
AMSAT-NA Moves Into New Satellite Lab

AMSAT News Service Bulletin 007.01
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.01

AMSAT Director and VP Engineering, Bob, N4HY reported this week, "By January 7 the 'Florida-to-Maryland-Move-Team' should have all of the contents of the old AMSAT Orlando laboratory placed in the new lab facility in Pocomoke City, Maryland."

Bob continues, "In this facility we expect to do Eagle and several joint ventures on smaller satellites. We also plan to have our new laboratory available to help Phase 3E."

The size of the AMSAT satellite lab is 6000 sq. feet. Our clean room, which required 8 large air handlers was driven into the facility by 24 foot trucks. The new building with the trucks inside can be seen in the photos on-line at: http://n4hy.smugmug.com/gallery/2297432/

The office space walls will be up the first week of January and most of the lab walls are planned for completion by the weekend we move in.

Additional details of the University of Maryland and AMSAT-NA satellite laboratory agreement can be seen at: http://www.amsat.org.

[ANS thanks Bob, N4HY for the above information]

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SB SAT @ AMSAT $ANS-007.02
SKN Best Fist Nominations Due

AMSAT News Service Bulletin 007.02
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.02

Many thanks to all who participated in Straight Key Night on OSCAR 2007. If you have not already done so, please take a moment to nominate someone you worked for Best Fist. Your nominee need not have the best fist of those you heard, but only of those you worked.

Please send your nomination to w2rs@amsat.org. A list of those nominated will be published in an ANS bulletin in early February, and in The AMSAT Journal.

[ANS thanks Ray, W2RS for the above information]

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SB SAT @ AMSAT $ANS-007.03
OSCAR Numbers for RAFT and ANDE Satellites

AMSAT News Service Bulletin 007.03
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.03

AMSAT OSCAR coordinator Bill Tynan, W3XO issued the following statement:

By the authority vested in me by the AMSAT-NA President, I am pleased to issue an OSCAR number for the RAFT-I and ANDE Cubesat amateur radio satellites.

From the information provided me, I conclude that, RAFT-I complies with all of the requirements for an OSCAR number. In accordance with your request, the prefix will be NAV. Thus, RAFT-I will henceforth be known as NAV-OSCAR-60 or NO-60.

Additionally, from the information provided me, I conclude that, ANDE complies with all of the requirements for an OSCAR number. In accordance with your request, the prefix will be NAV. Thus, ANDE will henceforth be known as NAV-OSCAR-61 or NO-61.

AMSAT-NA and I wish to congratulate you and your entire US Naval Academy Satellite Lab team for the successful construction, testing and orbiting of this very interesting spacecraft.

73 and Best Wishes,

William A. (Bill) Tynan, W3XO

[ANS thanks Bill, W3XO for the above information]

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SB SAT @ AMSAT $ANS-007.04
AMSAT Awards

AMSAT News Service Bulletin 007.04

From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.04

Bruce, KK5DO AMSAT Director Contests and Awards has posted are the awards for the end of 2006.

We would like to welcome the following to the satellite community. They have made their first satellite contact and are now members of the AMSAT Satellite Communicators Club.
Jack Callahan, N1BGG
David Johnson, KC9GHA

AMSAT Satellite Communications Achievement Award
Carles Roy I Garcia, EB3FYM #442

South Africa Satellite Communications Achievement Award
Carles Roy I Garcia, EB3FYM #US101
Sion Chao, 9W2QC #US102

To see all the awards visit http://www.amsat.org or http://www.amsatnet.com

[ANS thanks Bruce, KK5DO for the above information]

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SB SAT @ AMSAT $ANS-007.05
AO-51 Operating Schedule Modified for Software Reload and Testing

AMSAT News Service Bulletin 007.05
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.05

AMSAT-NA VP Operations, Drew KO4MA reported, "The AO-51 command stations have a software reload that began this week. We also need to perform additional testing to be scheduled for sometime this month."

In support of these necessary activities the official schedule for AO-51 for the immediate future will be the "normal" mode with the V/U FM repeater, and V/U BBS running, pending interruptions for the reload and testing.

Please be sure to consult the text posted there for the latest information at: http://www.amsat.org/amsat-new/echo/ControlTeam.php

[ANS thanks Drew, KO4MA for the above information]

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SB SAT @ AMSAT $ANS-007.06
Sunlight-Only Birds See the Light

AMSAT News Service Bulletin 007.06
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.06

It looks like AO-7 is back in a period of continuous illumination, and the

24 hr timer is working. Drew, KO4MA says, "It looks like the daily mode change between Mode A and B is occurring around 1130 to 1145Z each day." Please keep your transponded signals from FMing as a too strong signal may reset the satellite." More information can be found at: http://www.planetemily.com/ao7/ao7log.php

PCSAT-1 is back in full sunlight and working in 1200 baud AFSK packet digipeater mode on 145.825 MHz. Please use this satellite only when it is in sunlight.

[ANS thanks Drew, KO4MA and Bob, WB4APR for the above information]

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SB SAT @ AMSAT $ANS-007.07
Space and Satellite Shorts

AMSAT News Service Bulletin 007.07
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.07

+ The Union of Concerned Scientists has published a new version of the UCS Satellite Database, which includes launches through December 27, 2006. The database file and additional information has been posted at http://ucsusa.org/satellite_database.

+ Patrick WD9EWK/VA7EWK will be part of the AMSAT table at the Thunderbird Amateur Radio Club's "Westfest", at Glendale Community College in Glendale AZ on Saturday, 13 January 2007. Listen for W7W on AO-51 and SO-50 passes. QSL information, and more details about the hamfest, can be found at: http://www.w7tbc.org/Westfest.html

+ The well known HF Contest station HC8N in the Galapagos Islands was active on the SO-50 and AO-51 satellites prior to the 2006 CQ WW CW Contest. A total of 16 Satellite QSOs in 6 different countries were made. Primary SAT ops were Jon N0JK, Mark N5OT, and Bruce AA5B. A Yaesu dual band HT was used with an "Arrow" antenna (donated by Ramon, XE1KK). A highlight was working XE1KK, who has made many Satellite QSOs from various DX locales. If you were among those who worked HC8N, QSL via W5UE.

+ Universe Today announced that Tammy Plotner's "What's Up 2007" is now available on-line as an e-book. It's completely free. Once again, Tammy has written a 410-page PDF with suggestions for what you can see in the night sky every day of the year for 2007. The book is huge, more than 23 MB, but that's because we've crammed it full with beautiful photographs and skycharts. See: http://www.astrowhatsup.com/download-the-book/

+ The Planetary Society is offering a $50,000 prize for the best plan to reach out and put a tracking beacon on near-Earth asteroid Apophis (AKA 2004 MN4). Apophis is approximately 400 metres across, and it's expected to pass very close to the Earth in 2029. And on that pass, it could receive a gravitational bump to its orbit that could make it even more dangerous in 2036. With better tracking, scientists will have a much better idea if Apophis really is a risk to Earth. The competition ends August 31, 2007. More information is available at: http://www.universetoday.com/2006/12/14/tag-an-asteroid-win-a-prize/

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-007.08
AMSAT-NA President's Letter 2006

AMSAT News Service Bulletin 007.08
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.08

AMSAT Members,

There are only a few hours left in 2006 here in Maryland. As I sit here with my two year old granddaughter Erin on my lap I am reflecting back on the events of 2006 and I am pleased with the state of AMSAT. It has been a busy and productive year. In case you wonder what your President does all year, here is a snapshot. It is certainly not a complete listing. I hope you had as much fun as I did in 2006.

In February I made presentations to the Alexandria Radio Club and the Easton Amateur Radio Society, in March to the Greater Baltimore Hamboree and Computerfest and in April to the AMSAT-DC Meeting and Space Seminar. These and other presentations throughout the year have been helpful in getting people back on the satellites and encouraging some Hams to try it for the first time.

In March I observed a successful ARISS radio contact between Bowie High School (Maryland) and the International Space Station. It was a moving experience and I recommend that everyone attend or assist an ARISS event if one comes to your area.

The Dayton Hamvention in May was a great event, as always. The AMSAT booth was larger and better than ever before and the AMSAT Forum was an hour longer than in previous years. There was a demonstration of a new satellite power storage system using a super-capacitor and a single-cell "battery" charge regulator. There was also a live demonstration of a prototype Eagle mode U/V Software Defined Transponder (SDX).

In June I attended the Rochester NY Hamfest where I again got to see some old friends.

Later in June I attended the Eagle Digital Design Meeting in San Diego. This was an important milestone in the evolution of Eagle where many of the critical design parameters were finalized based on scientific and user needs analysis.

In July I attended the 21st AMSAT-UK Colloquium at the University of Surrey, Guildford, UK. Here I found more friends and met with the AMSAT International group and the AMSAT-DL P3E team. It was a busy and productive week.

Also in 2006 AMSAT was represented at the Southeastern VHF Society Conference, 40th Anniversary Central States VHF Society Conference, the 2006 ARRL Maryland State Convention, the ARRL Board of Directors meeting, the 2006 SmallSat Conference, the 25th Annual ARRL and TAPR Digital Communications Conference.

In August we had a meeting at the Pentagon to brief the head of the U.S. Air Force Space Command on AMSAT and the Eagle satellites.

We had a great Symposium in San Francisco in October where I was able to see many friends and attend some great presentations. It was a treat to have

astronaut Bill McArthur KC5ACR there and to present him with more awards for his Ham Radio activities on the International Space Station earlier in the year. I made a presentation to the Northern Virginia FM Association right after getting home.

In 2006 AMSAT took advantage of a special opportunity to support a major technological development that will have a positive impact on both satellites and Ham Radio in general; the High Performance Software Defined Radio (HPSDR) project. To learn more, see http://hpsdr.org/. The goal for AMSAT is to improve both the development schedule and the quality of our Eagle ground station and spacecraft transponder designs.

AMSAT-NA has accepted an offer to co-locate its Satellite Integration Lab with the Hawk Institute for Space Sciences (HISS), a division of the Maryland Hawk Corporation, a 501(c)(3) non-profit educational organization affiliated with the University of Maryland Eastern Shore (UMES). As I write this the first of three large rental trucks has arrived with the AMSAT equipment and large clean room from the old Orlando Labs.

Throughout the year AMSAT's AO-51 satellite has performed well. It has operated in many interesting modes and brought enjoyment to many people around the world. As the year draws to a close we are evaluating our experiences with AO-51 and planning software upgrades that will be implemented in the coming year that should make AO-51 even better. I special thanks go to AMSAT's VP Operations KO4MA and the control stations Michael Kingery KE4AZN and Gould Smith WA4SXM for their dedication and hard work keeping AO-51 operating smoothly.

In the final weeks of this year we achieved our fund raising goal for the Eagle project. This is particularly significant because I know it is harder for you to donate funds for a satellite that you haven't even seen yet. It is pleasing to see that the donors have faith in the future of AMSAT and I expect that they will be pleased with the results you will all see in the coming year. I recommend that you look at the revamped and improved EaglePedia pages on the AMSAT Web server. These pages are constantly being improved and expanded as a means of keeping everyone informed on the progress of the Eagle Project.

I hope you have all had a good holiday season and will have a Happy New Year!

Rick
W2GPS
AMSAT President

[ANS thanks Rick, W2GPS for the above information]

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SB SAT @ AMSAT $ANS-007.09
ARISS Status Report for the Week of January 1, 2007

AMSAT News Service Bulletin 007.09
From AMSAT HQ SILVER SPRING, MD.
January 7, 2007
To All RADIO AMATEURS
BID: $ANS-007.09

1. ARISS-Kashiwabara Contact Successful

On Wednesday, December 27, students visiting the Kashiwabara Community Center in Sayama City, Japan experienced a successful Amateur Radio on the International Space Station (ARISS) contact. Fifteen students were

able to have 15 questions answered by Michael Lopez-Alegria, KE5GTK.
Approximately 400 people attended the event and media coverage included
two newspapers and one television station.

2. ARISS Upcoming School Contacts

An Amateur Radio on the International Space Station (ARISS) contact has
been scheduled for the Australian Scout Jamboree 2007 on Sunday, January 7.
The Jamboree runs from January 2 - 13, 2007 in Elmore, Victoria, Australia.
Scouts from 53 countries have been invited and thirteen thousand scouts,
ages 11 and up, are expected to attend the event. An Amateur Radio station
will be set up, modelled after NASA's Mission Control Center, with the theme,
"Signals from Space." Ground station activities will be ongoing; the ARISS
contact with Sunita Williams, KD5PLB, will be the highlight of the event.

Sherman Elementary School in Henrietta, New York has been scheduled for a
direct Amateur Radio on the International Space Station (ARISS) contact on
Monday, January 8, 2007.

On Monday, January 8, 2007 at 17:34 UTC, students at Dilworth Elementary
School in San Jose, California will speak with Sunita William, KD5PLB, on
board the ISS. Local government officials and the media will be invited
to the event.

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining donors
to AMSAT Project Funds, will be eligible to receive additional benefits.
Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM